Inventors: David C. Hovda, et al Attorney Docket: E-05-2 Application No.: 09/963,736 Confirmation No.: 1485

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SPECIFICATION AMENDMENTS

In the Specification:

1) Please replace the paragraph beginning on page 2, line 8, with the following amended paragraph:

The present application is a division of application 09/480,880 which is U.S. Patent Number 6,659,106, issued December 9, 2003, which The present invention is a continuation-in-part of U.S. Patent Application No. 08/990,374, filed December 15, 1997 (Attorney Docket No. E-3), which is a continuation-in-part of U.S. Patent Application No. 08/485,219, filed on June 7, 1995, now U.S. Patent No. 5,697,281 (Attorney Docket 16238-000600), the complete disclosures of which are incorporated herein by reference for all purposes.

2) Please replace the paragraph beginning on page 36, line 11 with the following amended paragraph:

Figs. 17A and 17B illustrate the removal of sinus tissue in more detail (Fig. 17B illustrates a single active electrode embodiment). As shown, a high frequency voltage difference is applied between electrode terminal(s) 58 and return electrode 72 such that electric current 610 flows through the conductive fluid to the high frequency voltage is sufficient to convert the electrically conductive fluid (not shown) between the target tissue 602 and electrode terminal(s) 58 into an ionized vapor layer 612 or plasma. As a result of the applied voltage difference between electrode terminal(s) 58 and the target tissue 602 (i.e., the voltage gradient across the plasma layer 612), charged particles 615 in the plasma (viz., electrons) are accelerated towards the tissue. At sufficiently high voltage differences, these charged particles 615 gain sufficient energy to cause dissociation of the molecular bonds within tissue structures. This molecular dissociation is accompanied by the volumetric removal (i.e, ablative

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sublimation) of tissue and the production of low molecular weight gases 614, such as oxygen, nitrogen, carbon dioxide, hydrogen and methane forming a bore hole having a side wall and an end wall. The short range of the accelerated charged particles 615 within the tissue confines the molecular dissociation process to the surface layer to minimize damage and necrosis to the underlying tissue 620.